






ECS Configuration Change Request

Page 1 of 3 Page(s)

1. Originator Evan Winston	2. Log Date: 9/1/00	3. CCR #: 00-0902	4. Rev: -	5. Tel: 301.925.0348	6. Rm #: 2013	7. Dept. DEV/CO
8. CCR Title: Test Executable 5B.05_DDIST.01 to DAACs, VATC, PVC.. Distribution Threads are not working as expected.						
9. Originator Signature/Date  9/1/00		10. Class II	11. Type: CCR	12. Need Date: 1Sept2000		
13. Office Manager Signature/Date  9/1/00		14. Category of Change: Update ECS Baseline Doc.		15. Priority: (If "Emergency" fill in Block 28). Emergency		
16. Documentation/Drawings Impacted: N/A		17. Schedule Impact: N/A		18. CI(s) Affected: DDIST		
19. Release Affected by this Change: 5B		20. Date due to Customer:		21. Estimated Cost: None - Under 100K		
22. Source Reference: <input checked="" type="checkbox"/> NCR (attach) <input type="checkbox"/> Action Item <input type="checkbox"/> Tech Ref. <input type="checkbox"/> GSFC <input type="checkbox"/> Other: NCRs ECSed27584.						
23. Problem: (use additional Sheets if necessary) Problem: Distribution priority threads are not working as expected, high and very high requests are they are ignored for the low and normal threads. Impact: Requests high and very high priorities have to be changed to low or normal priority to run. These threads are not processed due to distribution of primary threads, therefore GDAAC cannot process in OPS.						
24. Proposed Solution: (use additional sheets if necessary) Test Executable 5B.05_DDIST.01 will provide fixes to the problem listed above. TE can be loaded on top of DDIST installations of 5B.03, 5B.04, and 5B.05. Note: TE 5B.04_DDIST.01 was released 3 weeks ago and contained this same fix -- This new TE is being provided to match the 5B.05 PSR baseline. The new TE MUST be installed on top of any 5B.05C version software install!!!!!! See page 3 for a detailed description of the resolution. This TE functionality has been tested by LaRC.						
25. Alternate Solution: (use additional sheets if necessary) Take no action now and wait until 5B.06 is available at the DAACs.						
26. Consequences if Change(s) are not approved: (use additional sheets if necessary) DAACs must continue to work around the problems and/or modify operating procedures.						
27. Justification for Emergency (If Block 15 is "Emergency"): Resolves DAAC operational problem.						
28. Site(s) Affected: <input type="checkbox"/> EDF <input checked="" type="checkbox"/> PVC <input checked="" type="checkbox"/> VATC <input checked="" type="checkbox"/> EDC <input checked="" type="checkbox"/> GSFC <input checked="" type="checkbox"/> LaRC <input checked="" type="checkbox"/> NSIDC <input checked="" type="checkbox"/> SMC <input type="checkbox"/> AK <input type="checkbox"/> JPL <input type="checkbox"/> EOC <input type="checkbox"/> IDG Test Cell <input type="checkbox"/> Other						
29. Board Comments:			30. Work Assigned To:		31. CCR Closed Date:	
32. EDF/SCDV CCB Chair (Sign/Date): 		Disposition: <u>Approved</u> App/Com. Disapproved Withdraw Fwd/ESDIS ERB Fwd/ECS				
33. M&O CCB Chair (Sign/Date):  9/1/00		Disposition: <u>Approved</u> App/Com. Disapproved Withdraw Fwd/ESDIS ERB Fwd/ECS				
34. ECS CCB Chair (Sign/Date): 		Disposition: Approved App/Com. Disapproved Withdraw Fwd/ESDIS ERB Fwd/ESDIS				

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ECS/EDF/SCDV/M&O

ADDITIONAL SHEET

CCR #: 00-0902 Rev: - Originator: Evan Winston

Telephone: 301.925.0348

Office: DEV/CO

Title of Change: Test Executable 5B.05_DDIST.01 to DAACs, VATC, PVC.. Distribution Threads are not working as expected.

CM: PLEASE, build Sun TAR file for the listed files from the current 5B baseline and provide to the SMC.

executable directory

/ecs/formal/DSS/bin/sun5.5/EcDsDistributionServer

lib directory:

/ecs/formal/DSS/lib/sun5.5

libs:

libDsDdSSh.so

libDsDd8mmTapeSh.so

libDsDdFtpPushSh.so

libDsDdFtpPullSh.so

libDsDdBSh.so

SMC: Receive the TAR file(s) and make available to the DAACs, PVC and VATC.

DAAC Install Instructions:

Change requested by GSFC -- problem exists at all DAACs.

NOTE: This TE was tested at LaRC before release to the other DAACs.

TE can be loaded on top of DDIST installations of 5B.03, 5B.04, and 5B.05. It MUST be reloaded over top of 5B.05C PSR version software installation.

1. Get File from SMC distribution;

Use the 'cp' from the command line to install/replace files.

2. REPLACE all occurrences of the files included with this TE mode-by-mode, using the same permissions levels and ownerships as previous file.

DDIST Priority Threads Validation Procedure NCR 27584

Scenario 1

1. Update the DsDdPriorityThreads table in the stmgt database to change the limit field to 1 for all priorities except VHigh which should be set to 0....

2. Submit a high volume of requests ensuring that they are a mixture of priorities...

3. Observe the order in which requests get completed through the DDIST GUI.

Scenario 2

1. Perform number 1 above.

2. Suspend all requests in the DDIST GUI...

3. Submit acquires for each of the types of priorities

4. Resume all (select all requests and click resume all)
5. Observe the order in which they get executed.

Scenario 3

1. Perform number 1 above
2. Ensure that a high number of requests are in the processing stage and a high number are in the pending state...
3. (Set the priority thread limits of VHight and Xpress to 3. Then repeat several times 3A and 3B below:
3B Suspend a normal request and change it's priority to VHigh, then resume
3C Suspend a normal request and change it's priority to Express ,then resume

RESOLUTION of the FIX: NCR 27584

1) The function PriorityQueue::AddRequest interface is changed to exactly match that of its virtual parent so that the polymorphic mechanism used in calling the function actually calls the intended function and does not default to calling merely the parent.

2) Checks have been added to make sure that this condition:

(# of worker threads > Sum of priority threads)
exists at server startup time and at runtime when
priority threads are seized.

(The default # of worker threads is changed to 228
in the mkcfg)

3) New debug output includes a summary of the priority queue
as request are being added and removed from the queue.
(This increases debug output by about 20-40 lines per request)

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